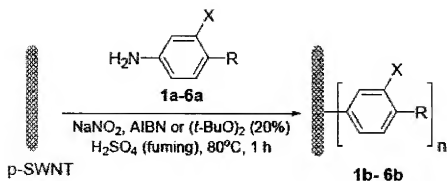


Scheme 1



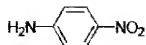
- 1a.** R = H, X = H to **1b.** R = SO₃H, X = H
2a. R = NO₂, X = H to **2b.** R = NO₂, X = SO₃H
3a. R = Cl, X = H to **3b.** R = Cl, X = SO₃H
4a. R = *t*-butyl, X = H to **4b.** R = *t*-butyl, X = H and SO₃H (~1:1)^a
5a. R = CH₂CH₂OH, X = H to **5b.** R = CH₂CH₂OH, X = SO₃H^b
6a. R = SO₃H, X = H to **6b.** R = SO₃H, X = H

Fig. 1

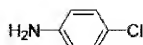
2/11
REPLACEMENT SHEET



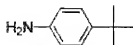
1a



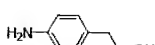
2a



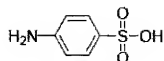
3a



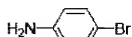
4a



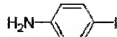
5a



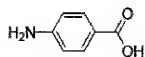
6a



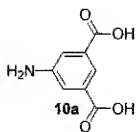
7a



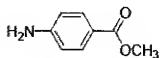
8a



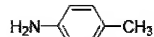
9a



10a



11a



12a

Fig. 2

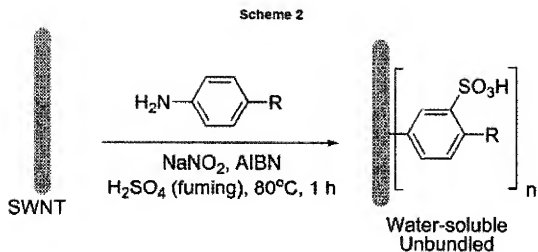


Fig. 3

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REPLACEMENT SHEET

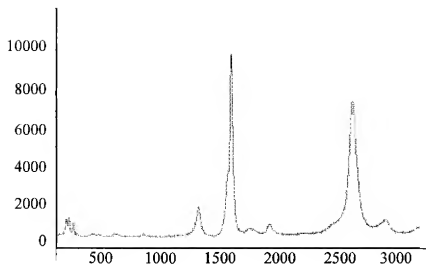


Fig. 4

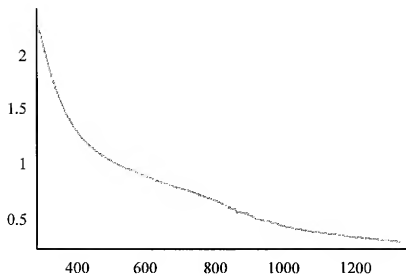
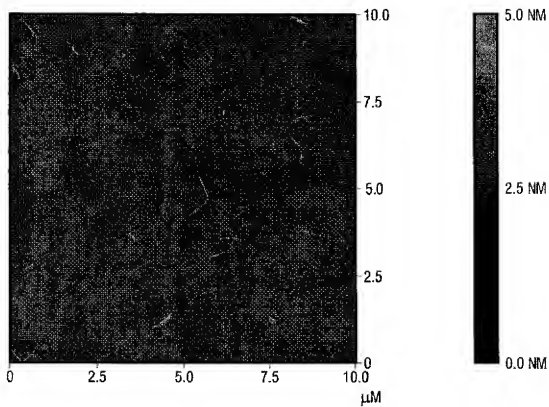


Fig. 5

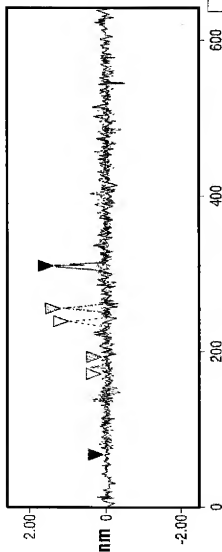
5/11
REPLACEMENT SHEET



DIGITAL INSTRUMENTS	NANOSCOPE
SCAN SIZE	10.00 μM
SCAN RATE	0.9997 HZ
NUMBER OF SAMPLES	512
IMAGE DATA	HEIGHT
DATA SCALE	5.000 NM

FIG. 6

L	243.16 NM
RMS	0.168 NM
LC	DC
RA(LC)	0.089 NM
RMAX	1.521 NM
RZ	0.635 NM
RZ CNT	VALID
RADIUS	308.76 NM
SIGMA	0.450 NM



▽	SURFACE DISTANCE	63.105 NM
	HORIZ DISTANCE(L)	62.500 NM
	VERT DISTANCE	1.189 NM
	ANGLE	1.090°
▽	SURFACE DISTANCE	66.899 NM
	HORIZ DISTANCE	66.406 NM
	VERT DISTANCE	0.929 NM
	ANGLE	0.801°
▲	SURFACE DISTANCE	245.50 NM
	HORIZ DISTANCE	243.16 NM
	VERT DISTANCE	1.418 NM
	ANGLE	0.334°
▽	SPECTRAL PERIOD	DC
	SPECTRAL FREQ	0 HZ
	SPECTRAL RMS AMP	0.000009 NM

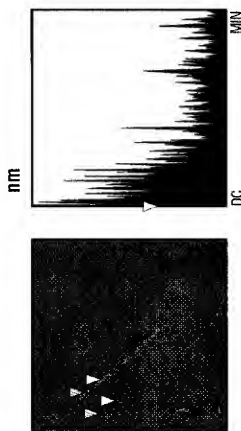


FIG. 7

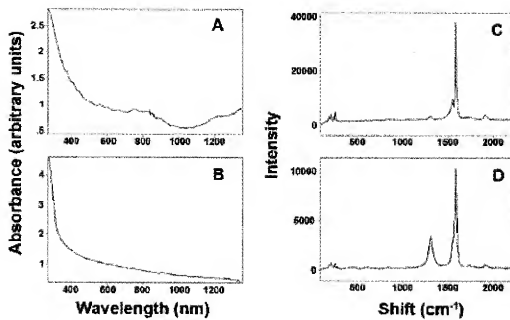


Fig. 8

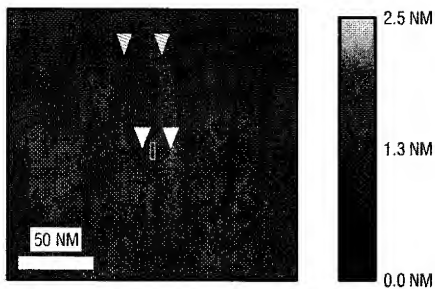


FIG. 9A

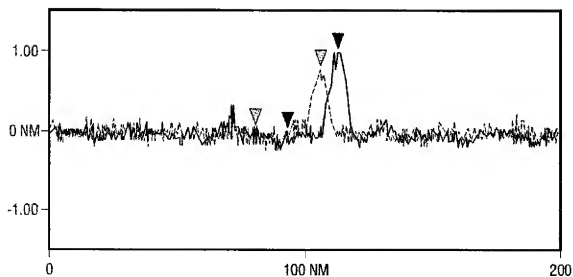


FIG. 9B

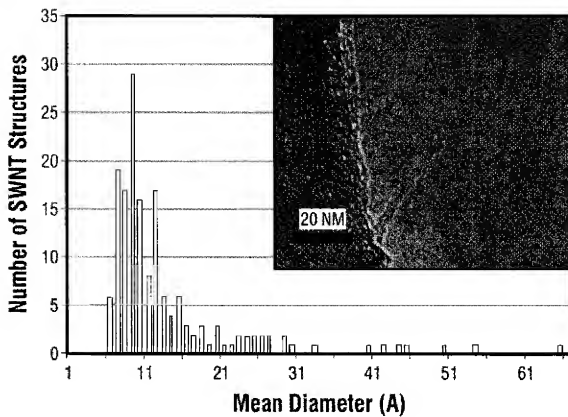


FIG. 10

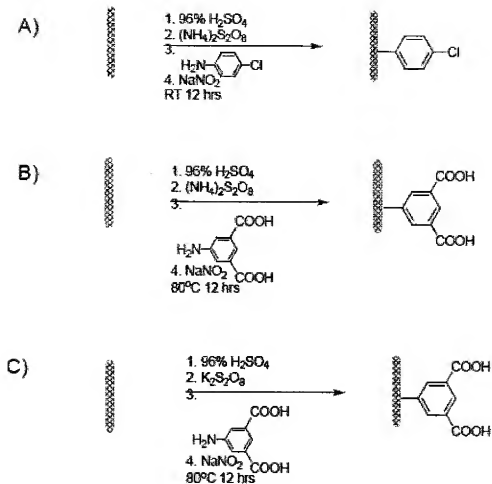
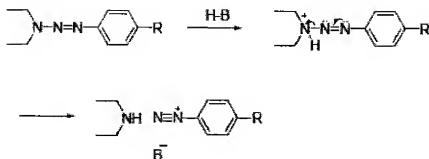


Fig. 11

Scheme 3



H-B = Acidic Media

Fig. 12

Scheme 4

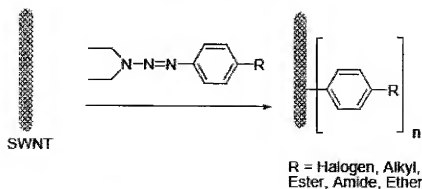


Fig. 13